



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Turung
For : AIRCRAFT EMERGENCY NAVIGATIONAL
SYSTEM
Serial No. : 10/799,980
Filed : March 12, 2004
Examiner : Brian J. Broadhead
Group Art Unit : 3661
Date of Last Action : August 22, 2007
Our Docket : BETT 2 13280

REPLY BRIEF

Mail Stop Appeal Brief - Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

This Reply Brief is being filed by Appellant in response to the Answer mailed on August 22, 2007.

The examiner, in Section 9 of the Answer set forth the basis for rejecting claims 23-27, 31, 32, 34-36, 39, 40, 44-48, 52, 53, 55-57, 60 and 61, which are the subject of this appeal. This basis for the rejection appears to be identical to the basis for the claims rejection set forth in the Final Office Action mailed November 2, 2006.

Section 10 of the Answer represents the response by the examiner to the arguments for patentability of the pending claims argued by Appellant in the Appeal Brief. Appellant's comments to this response by the examiner is set forth below.

Appellant has maintained that the Emergency Navigation System is a system that only takes **control** of a navigational system of an aircraft when some type of deviation is detected. As such, the Emergency Navigation System of the present invention may never control the flight of an aircraft so long as a flight parameter is not deviated from some predetermined flight parameter that is **correlated to some particular time and/or location.**

The examiner asserted that the control apparatus disclosed in Schanzer operates to eliminate deviation from a desired flight path. Appellant agrees, but further asserts that the control apparatus is constantly controlling the flight of the aircraft. Schanzer does not disclose, teach or suggest a time period during the flight of the aircraft that the control apparatus is not controlling the flight of the aircraft. As such, the control apparatus of Schanzer **constantly** controls the flight of the aircraft.

This is an important distinction from the Emergency Navigation System of the present invention. The Emergency Navigation System only takes partial control or full control of the aircraft **after** some deviation has been detected. Constant control of the flight of the aircraft is not the defined function of the Emergency Navigation System of the present invention. The Emergency Navigation System does constantly monitor the one or more flight parameters of the aircraft during the flight of the aircraft, and compares such measured information to predefined information that is correlated to **some particular time and/or location** of the aircraft during the flight of the aircraft. However, monitoring measured information and controlling the flight of the aircraft are two different functions. The Emergency Navigation System of the present invention is not the primary flight

controller as disclosed in Schanzer, but a secondary system that takes control of the aircraft when a deviation has occurred during the flight of the aircraft.

The examiner also asserted that Schanzer uses predefined flight information, that is correlated to **some particular time and/or location** of the aircraft during the flight of the aircraft, to control the aircraft. The examiner has cited two passages in Schanzer for support of this position, namely Column 3, lines 58-60 and Column 4, lines 50-67. In neither of these passages has Appellant identified any information regarding the use of predefined flight information which is correlated to **some particular time and/or location** of the aircraft during the flight of the aircraft.

The examiner asserted that Bice discloses the use of predefined flight information that is correlated to a particular time and/or location and refers to column 13 lines 44-66 for support. Bice discloses in this passage that a digital terrain database could be used to provide information about the land terrain during a flight. However, such terrain data is not predefined flight parameter data. The aircraft is not on the ground during flight. As such, terrain data is not flight data as defined in the invention.

The examiner further asserted that the KSR ruling makes it easier to justify the combination of prior art references. Even if this is true, the combination of Bice with Schanzer does not disclose, teach or suggest any of the pending claims. As stated above, Bice does not disclose the use of predefined flight data to control the flight of the aircraft. Bice merely discloses an emergency crash system that prevents the aircraft from flying too low to the ground. Such systems are well known in the art. Schanzer discloses a control system that constantly controls the flight of the aircraft, especially for purposes of attacking another object.

Lastly, the examiner asserted that redundancy in aircraft control systems is obvious.

Although no prior art was cited in support of this position, Appellant maintains that there is no suggestion in the art of record that redundant Emergency Navigation Systems, not the primary navigation system, wherein the redundant systems are located in different regions of the aircraft are obvious.

In conclusion, Appellant resubmits that the claims on appeal pertain to a novel emergency navigational system and novel method of at least partially controlling an aircraft. Appellant respectfully requests that the rejection of the claims be withdrawn and that such claims be indicated as allowable.

Respectfully submitted,
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